

ABSTRACT OF THE DISCLOSURE

An oxidative halogenation process involving contacting a hydrocarbon, for example, ethylene, or a halogenated hydrocarbon with a source of halogen, such as hydrogen chloride, and a source of oxygen in the presence of a catalyst so as to form a halocarbon, preferably a chlorocarbon, having a greater number of halogen substituents than the starting hydrocarbon or halogenated hydrocarbon, for example, 1,2-dichloroethane. The catalyst is a novel composition comprising copper dispersed on a porous rare earth halide support, preferably, a porous rare earth chloride support. A catalyst precursor composition comprising copper dispersed on a porous rare earth oxyhalide support is disclosed. Use of the porous rare earth halide and oxyhalide as support materials for catalytic components is disclosed.